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United States Application Serial No. 10/782,269

Remarks

In view of the following remarks, the Examiner is requested to withdraw the rejections and allow Claims 1-5, 8-30 and 37-44, the only claims pending and currently under examination in this application.

Formal Matters

Claims 1-5, 8-18, 28-30 and 37 were examined and rejected.

Claims 19-27 and 38-44 were previously withdrawn.

Claims 6-7 and 31-36 were previously canceled.

Claims 1 and 37 have been amended to specify that the capture agent is in aqueous solution. Support for this amendment can be found in the specification at para. [062].

As the above amendments enter no new matter to the application, their entry by the Examiner is respectfully requested.

Rejection under 35 U.S.C. §102

Claims 1-5, 10-15, 17-18 and 37 have been under 35 U.S.C. § 102(b) as being anticipated by Little et al. (U.S. Pat. No.6,387,628).

According to MPEP § 2131:

***To anticipate a claim, a reference must teach each and every element of the claim.***

Without any intention to acquiesce to the correctness of this rejection and solely to expedite prosecution, Independent Claims 1 and 37 have been amended to specify that the capture agent is in aqueous solution.

In maintaining this rejection, the Examiner equates the pin array of Little et al. with the array of features in the instant claims. However, as will be described in greater detail below, Little's capture agents are physically attached to the pin array. Little

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does not disclose an array containing capture agents that are in aqueous solution, as required by the instant claims. As such this rejection should be withdrawn.

Support for the Applicants position is set forth below.

According to Little et al.:

Polypeptides of interest, particularly target polypeptides, are immobilized due to contact with the pin tool.... For example, the pins can have nickel ions attached, such that only polypeptides containing a polyhistidine sequence are bound. Similarly, the pins can have antibodies specific for a target polypeptide attached thereto, or to beads that, in turn, are attached to the pins. (Col. 50, lines 20-38) (Emphasis added).

As noted above, Little et al. discloses a pin array that has a capture agent attached to the pins. Nowhere in Little's disclosure does Little disclose a capture agent that is in aqueous solution.

Furthermore, one of skill in the art would know that Little's pin array is designed to be inverted and "dipped" into wells that contain an aqueous fluid. Simply modifying Little's method to include capture agents that are aqueous solution would render Little's method inoperable.

In view of the above, the Applicants submit that Little et al. fails to disclose each and every element of the rejected claims. Accordingly, this rejection may be withdrawn.

**Rejection under 35 U.S.C. §103 – Little in view of Marshall**

Claim 8 has been rejected under 35 U.S.C. §103 (a) as being unpatentable over Little et al. (US. Pat. No.6,387,628) in view of Marshall (US. Pat. No.5,236,826).

As stated in MPEP §2142, three basic criteria must be met to establish a *prima facie* case of obviousness: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary

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**skill in the art, to modify the reference or combine reference teachings; (2) there must be a reasonable expectation of success; and (3) the prior art reference must teach or suggest all the claim elements.**

As discussed above, Little is deficient for failing to disclose each and every element of the rejected claims. Specifically, Little fails to teach or suggest a capture agent that is in an aqueous solution.

Marshall discloses a method for performing a heterogenous immunoassay and is cited solely to provide a "washing" step. Like Little however, Marshall fails to provide any step that employs a captive agent in an aqueous solution. As such, Marshall fails to meet Little's deficiency.

At best, the combination suggested by the Examiner provides a method that employs a pin array and a washing step. This is not the method being claimed.

In view of the above, the Applicants submit that Little et al. and Marshall, taken alone or in combination, do not teach or suggest each and every element found in the present claims. Accordingly, this rejection may be withdrawn.

**Rejection under 35 U.S.C. §103 – Little in view of Krantz**

Claim 9 has been rejected under 35 U.S.C. §103 (a) as being unpatentable over Little et al. (US. Pat. No.6,387,628) in view of Krantz et al. (US. 5,840,733).

As discussed above, Little is deficient for failing to disclose each and every element of the present claims. Specifically, Little fails to teach or suggest the element of a capture agent in an aqueous solution.

Krantz discloses compounds that react with blood components to form covalent linkages. These compounds are mixed with a matrix on an analysis plate and dried before performing a MALDI-MS analysis.

Krantz is cited solely to provide the matrix-sample drying step.

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However, like Little, Krantz et al fails to provide any step that employs a captive agent in an aqueous solution. As such, Krantz et al. fails to meet Little's deficiency.

At best, the combination suggested by the Examiner provides a method that employs a pin array and a drying step. This is not the method being claimed.

In view of the above, the Applicants submit that Little and Krantz, taken alone or in combination, do not teach or suggest each and every element of the present claims. Accordingly, this rejection may be withdrawn.

**Rejection under 35 U.S.C. §103 – Little in view of El Shami**

Claim 16 has been rejected under 35 U.S.C. §103 (a) as being unpatentable over Little et al. (US. Pat. No.6,387,628) in view of El Shami et al. (US.6,525,187).

As discussed above, Little is deficient for failing to disclose each and every element of the present claims. Specifically, Little fails to teach or suggest the element of a capture agent in an aqueous solution.

El Shami et al. discloses isolated cDNA molecules and an alternatively spliced variant encoding autoantigens associated with endometriosis.

El Shami et al. was cited solely to teach a step in which the amount of an analyte is determined. Like Little discussed above, El Shami et al. fails to provide any step that employs a captive agent in an aqueous solution. As such, El Shami fails to meet Little's deficiency.

At best, the combination suggested by the Examiner provides a method of measuring the amount of a biopolymer bound to a capture agent which is attached to the pin array. That is not the method being claimed.

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In view of the above, the Applicants submit that Little et al. and El Shami et al., taken alone or in combination, do not teach or suggest each and every element of the present claims. Accordingly, this rejection may be withdrawn.

**Rejection under 35 U.S.C. §103 – Little in view of Sugiyama**

Claim 16 has been rejected under 35 U.S.C. §103 (a) as being unpatentable over Little et al. (US. Pat. No. 6,387,628) in view of Sugiyama (US. Pat. No. 6,828,421).

As discussed above, Little is deficient for failing to disclose each and every element of the present claims. Specifically, Little fails to teach or suggest the element of a capture agent in an aqueous solution.

Sugiyama discloses methods of detecting protein complexes and modulating the functions and activities of protein complexes.

Sugiyama was cited solely to provide a data transmission step. However, like Little, Sugiyama fails to provide any step that employs a capture agent in an aqueous solution. As such, this Sugiyama fails to meet Little's deficiency.

At best, the combination suggested by the Examiner provides a method of determining the amount of a biopolymer bound to a capture agent attached to the pin array and transmitting the data to a remote location. This is not the method being claimed.

In view of the above, the Applicants submit that Little et al. and Sugiyama, taken alone or in combination, do not teach or suggest each and every element found in the present claims. Accordingly, this rejection may be withdrawn.

**Obviousness-type double patenting**

Claims 1-6, 8-18, 28-30 and 37 are provisionally rejected under the doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of co-pending patent application 10/001,493.

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As this rejection is provisional, the Applicants respectfully request that this rejection be held in abeyance until a Notice of Allowance is received for one of the co-pending applications.

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Conclusion

The Applicants submit that all of the claims are in condition for allowance, which action is requested. If the Examiner finds that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone Mike Beck at 408-553-3864.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-1078.

Respectfully submitted,

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